

Docket No.: 27592-00837-US
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Arto Palin et al.

Application No.: 10/773,287

Confirmation No.: 8738

Filed: February 9, 2004

Art Unit: 2618

For: Synchronization of Time-Frequency Codes

Examiner: Wen Wu Huang

REPLY BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This reply brief is filed in response to an Examiner's Answer mailed November 2, 2009. Applicants believe that no fees are required in conjunction with this submission. However, should any further fees be due, including if such paper(s) be inadvertently omitted, Applicants authorize such fees to be charged to Deposit Account No. 22-0185, under Order No. 27592-00837-US, from which the undersigned is authorized to draw.

This brief contains items under the following headings as required by M.P.E.P. § 1208,
which begin on the pages as indicated:

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I. STATUS OF CLAIMS

A. Total Number of Claims in Application

There are 28 claims pending in this application.

B. Current Status of Claims

1. Claims canceled: 1-25, 29, 37
2. Claims withdrawn from consideration but not canceled: None
3. Claims pending: 26-28, 30-36, 38-55
4. Claims allowed: None
5. Claims rejected: 26-28, 30-36, 38-55

C. Claims On Appeal

The claims on appeal are Claims 26-28, 30-36, and 38-55.

II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 26, 27, 31-35, 39-43, 45 and 50-55 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Publication No. 2002/01679931 to Jang et al. (hereinafter "Jang et al.") in view of U.S. Patent No. 6,256,334 to Adachi (hereinafter "Adachi").

Claims 28, 36 and 44 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jang and Adachi as applied to claims 26, 34 and 42 and in further view of U.S. Patent Publication No. 2003/0206561 to Schmidl (hereinafter "Schmidl").

Claims 30, 38 and 46 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jang and Adachi as applied to claims 26, 34 and 42 and in further view of U.S. Patent No. 6,333,937 to Ryan (hereinafter "Ryan").

Claims 47 and 48 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jang and Adachi as applied to claim 42 and in further view of U.S. Patent No. 7,110,472 to Sakoda (hereinafter "Sakoda").

Claim 49 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Jang and Adachi as applied to claim 42 and in further view of U.S. Patent Publication No. 2003/0078006 to Mahany (hereinafter "Mahany").

III. ARGUMENTS

Applicants maintain the arguments as presented in the Appeal Brief filed on July 28, 2009.

Additionally, in response to the Examiner's Answer mailed on November 2, 2009, Applicants would like to point out that there are flaws in the reasoning found in the "Response to Arguments" section of the Examiner's Answer.

First, the Examiner's Answer, at pages 17-18, attempts to cure deficiencies pointed out with respect to the claim rejections, as discussed in Applicants' Appeal Brief, e.g., at pages 11-12, by further pointing to Jang et al. at paragraph 36, in conjunction with paragraphs 31-35. However, this still fails to refute the fact that Jang et al. is deficient insofar as that it fails to disclose or suggest the determination of transmission timing based on a particular condition (on the energy level of a monitored frequency band) being met. While, as explained in Applicants' Appeal Brief, Jang et al. includes measurement of a received signal strength and the comparison of the received signal strength with a reference signal to determine if the measured transmission slot has a "good channel state," this still fails to determine transmission timing, even if paragraph 36 is considered as discussed in the Examiner's Answer.

In particular, Applicants maintain, as discussed at pages 11-12 of the Appeal Brief, that the determination of a "good channel state" is used to generate a signal to indicate to wireless communication system 65 that transmission may proceed. Jang et al. at paragraph 36. Furthermore, continuing with paragraph 37, failure to determine that the transmission slot has a "good channel state" results in sending a signal to the wireless communication system 65 "for abandoning the data transmission." Jang et al. at paragraph 37. That is, in contrast to determining transmission timing, the system of Jang et al., in essence, generates a "go/no-go" signal to determine whether transmission should occur *using a timing that must then be established*, as discussed in the preceding paragraphs. This signal does not establish transmission timing.

It is further noted that the techniques of Jang et al. do not address "wherein a timing of further data transmission according to the selected frequency hopping pattern is determined

based on a time at which the particular condition is met,” as claimed. All of the discussion in Jang et al. addresses determination of whether to transmit *on a slot-by-slot basis*. This is clear from a review of paragraphs 31-41 and Figures 8, 9A, and 9B of Jang et al., where it is clear that each time a transmission is to occur, the slot in which the transmission is to occur is first monitored. This contradicts the assertion that determining a “good channel state” in one slot establishes timing for transmission in further slots and, in fact, *teaches away* from this claim element by requiring slot-by-slot monitoring.

Hence, one of ordinary skill in the art would not have been motivated to use the techniques of Jang et al. to establish further transmission timing.

Furthermore, for these same reasons, the teachings of Jang et al. are incompatible with the teachings of Adachi, and thus, one of ordinary skill in the art would not have combined them.

In addition, when discussing Adachi, the Examiner’s Answer, at pages 18-19, appears to be making two statements. One is that “receiving a RF signal requires detecting some RF energy.” Examiner’s Answer at 18. However, this does not satisfy the claim element of meeting “a particular condition” based on measured signal energy. For one thing, there is no measurement. For another thing, there is no condition placed on received signal energy. The Examiner’s Answer continues, stating, “the particular condition is met when the response signal is received and a time at which the condition is met is a time when the response signal is received.” Examiner’s Answer at 19. Again, this fails to refer to a condition on a measured received energy.

The second is at the top of page 19 of the Examiner’s Answer, which states, “the timing of frequency hopping is based on the time value of a received signal, providing the timing information of a neighboring LAN.” Examiner’s Answer at 19. This merely confirms Applicants’ arguments at page 9 of their Appeal Brief, namely, that timing in Adachi is set based on received timing information, not on the timing of signal reception (i.e., if one were to suppose, *arguendo*, that receiving a signal corresponds to meeting the particular condition (on signal energy) of the claims, which Applicants submit is incorrect).

Therefore, as noted in Applicants’ Appeal Brief, Adachi fails to cure the deficiencies of Jang et al.

Finally, although Applicants have presented arguments relating to the individual references, these arguments are directed to showing the flaws that exist even when the teachings of the references are combined. This is clear from the fact that Applicants' Appeal Brief includes mention of Adachi when discussing Jang et al., and *vice versa*. In other words, Applicants have addressed, not only the individual references, but their combination, as well, by demonstrating that neither cures the deficiencies of the other and that one could not combine them to obtain all of the elements found in the claims.

Therefore, Applicants continue to maintain that all claims on appeal are allowable over the cited references.

Dated: December 29, 2009

Respectfully submitted,

By
Jeffrey W. Gluck, Ph.D.

Registration No.: 44,457
CONNOLLY BOVE LODGE & HUTZ LLP
1875 Eye Street, N.W., Suite 1100
Washington, DC 20006
(202) 331-7111
(202) 572-0322 (Direct Dial)
(202) 293-6229 (Fax)
Attorney for Applicant